

SGO 3200 Environment and innovation reading list spring 2019

Syllabus/achievement requirements

* = the article is in a compendium

@ = the article is available online

[How to find an article on the reading list](#)

All course curriculum is available at the bookstore Akademika. The compendium will be available at Kopiutsalget in the basement of Akademika. Please bring your student card.

Online articles

@ = articles are available online through Bibsys' subscriptions to e-journal databases for employees and students. To access the articles it is necessary to use a computer in the UiO network. This is because the UiO subscription access is controlled by IP-address. To download the articles from computers outside the UiO network it is necessary to connect to the UiO network by VPN client.

Module 1: The Sustainability Challenge

*Altenburg, T. and A. Pegels. (2012): Sustainability-oriented innovation systems – managing the green transformation. *Innovation and Development* 2(1): 5-22.

@Anderson, K. 2015. Duality in climate science. *Nature Geoscience*, published online 12 Oct. (4 pages)

@Asafu-Adjaye, J. (2015): An Ecomodernist Manifesto.

@Colglazier, W. (2015): Sustainable Development Agenda: 2030. *Science* 349(6252) 1048-1050.

@Mol, A.P.J. and Spaargaren, G. (2000): Ecological modernisation theory in debate: A review. *Environmental Politics* 9(1): 17-49. (23 pages)

@Olsson, P, Moore, M.J, Westley, F.R. and McCarthy, D.D.P. (2017). The concept of the Anthropocene as a game changer: a new context for social innovation and transformation to sustainability. *Ecology and Society*, 22(2):31.

@Rockstrom et al. (2009): A Safe Operating Space for Humanity. *Nature* 461, 472-475

@Warner, R. 2010. Ecological modernisation theory: towards a critical ecopolitics of change? *Environmental Politics* 19(4): 538-556

Module 2: Innovation – the basics

*Asheim, B.T. (2005): The Geography of Innovation: Regional Innovation Systems. In Fagerberg, J., Mowery, D.C. and Nelson, R.R. (2005). *The Oxford Handbook of Innovation*. Oxford, Oxford University Press. (26 pages).

@Fagerberg, J. (2018). Mission (im)possible? The role of innovation (and innovation policy) in supporting structural change & sustainability transitions. TIK Working papers on Innovation Studies, no. 20180216 <http://ideas.repec.org/s/tik/inowpp.html> (34 pages)

*Fagerberg, J. (2005): Innovation: A Guide to the Literature. In Fagerberg, J., Mowery, D.C. and Nelson, R.R. (2005). *The Oxford Handbook of Innovation*. Oxford, Oxford University Press. (28 pages).

@Geels, F.W and Schot, J. (2007): Typology of sociotechnical transition pathways. *Research Policy*, 36, 399-417.

@Gibbs, D. and O'Neill, K. (2017). Future green economies and regional development: a research agenda. *Regional Studies*. 51, 1, 161-173.

@Liu, J. Chaminade, C. Asheim, B. (2013): The Geography and Structure of Global Innovation Networks: A Knowledge Base Perspective. *European Planning Studies* (published online).

*Lundvall, B. Å. and Johnsen, B. (1994): The Learning Economy. *Journal of Industry Studies*, Vol 1, pp 23-42 (19 pages).

*Jessop, B., Moulaert, F., Hulgård, F. and Hamdouch, A. (2013) Socail innovation research: a new stage in innovation analysis?. In Moulaert, F., MacCallum, D., Mehmood, A. and Hamdouch, A. (eds.): *The International Handbook of Social Innovation*. Edward Elgar, Cheltenham. Pp. 110-130.

Module 3 – Green innovations and transitions in practice

@Bain, C. and Selfa, T. (2013): Framing and reframing the environmental risks and economic benefits of ethanol production in Iowa. *Agriculture and Human Values*, 30, 351-364. (13 pages).

@Bergquist, A-K. and Söderholm, K. (2015): Transition to greener pulp: regulation, industry responses and path dependency. *Business History*, 57:6, 862-884.

@Berkout, F., Verbong, G., Wieczorek, A. J., Raven, R., Lebel, L. and Bai, X. (2010): Sustainability experiments in Asia: innovations shaping alternative development pathways? *Environmental Science and Policy*, 13, 261-271. (10 pages).

@Boyd, E., Boykoff, M. and Newell, P. (2011): The “New” Carbon Economy: What’s New? *Antipode*, 43, 601-611.

@Bridge, G., Bouzarovski, S., Bradshaw, M., & Eyre, N. 2013. Geographies of energy transition: Space, place and the low carbon economy. *Energy Policy*, 53: 331-340.

@Coenen, L., Moodysson, J., Martin, H. (2015): Path renewal in old industrial regions: possibilities and limitations for regional innovation policy. *Regional Studies* Vol. 49, Issue 5, 850-865

@Forsman, H. (2013): Environmental Innovations as Sources of Competitive Advantage or Vice Versa? *Business Strategy and the Environment*, 22, 306-320. (14 pages).

@Geels, F., Sovacool, B.K., Schwanen, T. and Sorrell, S. (2017). Sociotechnical transitions for deep decarbonization. Accelerating innovation is as important as climate policy. *Science*, 357, 1242-1244.

@Geels, F.W., Kern, F., Fuchs, G., Hinderer, N., Kungl, G., Mylan, J., Neukirch, M., Wassermann, S. (2016) The enactment of socio-technical transition pathways: A reformulated typology and a comparative multi-level analysis of the German and UK low-carbon electricity transitions (1990-2014), *Research Policy*, 45(4), 896-913.

@Geels, F.W. (2014). Regime Resistance against Low-Carbon Transitions: Introducing Politics and Power into the Multi-Level Perspective. *Theory, Culture & Society*, 31, 5, 21-40.

@Haarstad, H. and Rusten, G. (2016). The challenges of greening energy: policy/industry dissonance at the Mongstad refinery, Norway. *Environment and Planning C: Government and Policy*, 34, 340-355.

@Hargreaves, T., Hielscher, S., Seyfang, G. & Smith, A. 2013. Grassroots innovations in community energy: The role of intermediaries in niche development. *Global Environmental Change*, 23 (5): 868-880.

@Karnøe, P. and Garud, R. (2012). Path Creation: Co-creation of Heterogenous Resources in the Emergence of the Danish Wind Turbine Cluster. *European Planning Studies*, 20:5, 733-752.

@Niva, M., Mäkelä, J. , Kahma, N. and Kjærnes, U. (2014). Eating Sustainable? Practices and Background Factors of Ecological Food Consumption in Four Nordic Countries. *Journal of Consumer Policy*, 37, 465-484.

@Noe, E, Alrøe, H.F, Thorsøe, M.H., Olesen, J.E., Sørensen, P, Melander, B. and Fog, E. (2015). Knowledge Asymmetries Between Research and Practice: A social Systems approach to Implementation Barriers in Organic Arable Farming. *Sociologica Ruralis*, 55, 460-482.

@O'Neill, K.J. and Gibbs, D. (2014): Towards a sustainable economy? Socio-technical transitions in the green building sector. *Local Environment*, 19, 6, 572-590.

@Rohracher, H. and Späth, P. (2013): The Interplay of Urban Energy Policy and Socio-technical Transitions: The Eco-cities of Graz and Freiburg in Retrospect. *Urban Studies*, 51.

@Shove, E. (2010). Beyond the ABC: climate change policy and theories of social change. *Environment and Planning A*, 42, 1273-1285.

@Smith, A. (2007): Translating Sustainability's between Green Niches and Socio-Technical Regimes. *Technology Analysis & Strategic Management*, 19, 4, 427-450. (23 pages).

@Smith, A., Kern, F., Raven, R., & Verhees, B. 2014. Spaces for sustainable innovation: Solar photovoltaic electricity in the UK. *Technological Forecasting and Social Change*, 81: 115-130.

@Späth, P. and Rohracher, H. (2010): "Energy regions": The transformative power of regional discourses on socio-technical futures. *Research Policy*, 39, 449-458.

@Specht, K., Siebert, R., Hartmann, I., Freisinger, U.B., Sawicka, M., Werner, A., Thomaier, S., Henckel, D., Walk, H. and Dierich, A. (2013): Urban agriculture of the future: an overview of sustainability aspects of food production in and on buildings. *Agriculture and Human Values* 30, 351-361. (19 pages).

@Ulsrud, K., Winther, T., Palit, D., Rohracher, H. and Sandgren, J. (2011): The Solar Transitions research on solar mini-grids in India: Learning from local cases of innovative socio-technical systems. *Energy for Sustainable Development*, 15, 293-303. (10 pages)

@Weber, K. and Rohracher, H. (2012): Legitimizing research, technology and innovation policies for transformative change. Combining insights from innovation systems and multi-level perspective in a comprehensive "failures" framework. *Research Policy*, 41, 1037-1047.

Module 4 – Social innovation and transformations to sustainability

@Avelino, F. Wittmayer, J., Haxeltine, A., Kemp, R., O'Riordan, T., Weaver, P., Loorbach, D. and Rotmans, J. (2014): Game-changers and Transformative Social Innovation. The Case of the Economic

Crisis and the New Economy, TRANSIT working paper, TRANSIT: EU SSH.2013.3.2-1 Grant agreement no: 613169

@Avelino, F. (2017). Power in Sustainability Transitions: Analysing power and (dis)empowerment in transformative change towards sustainability. *Environmental Policy and Governance*, 27, 505-520.

*Bornstein, D. *How to Change the World: Social Entrepreneurs and the Power of new Ideas*. Oxford.

@Leach, M., J. Rockström, P. Raskin, I. Scoones, A. C. Stirling, A. Smith, J. Thompson, E. Millstone, A. Ely, E. Arond, C. Folke, and P. Olsson. (2012): Transforming innovation for sustainability. *Ecology and Society* 17(2): 11.

@Leismann, K. et al. (2013): Collaborative consumption: Towards a resource-saving consumption culture. *Resources* 2: 184-203.

@ Mulgan, G., Tucker, S., Ali, R. and B. Sanders. (2007): *Social Innovation: What it is, why it matters and how it can be accelerated*. Skoll Centre for Social Entrepreneurship. (54 pages).

*Moulaert, F., MacCallum, D. and Hillier, J. (2013). Social innovation: intuition, precept, concept theory and practice. In Moulaert, F., MacCallum, D., Mehmood, A. and Hamdouch, A. (eds.): *The International Handbook of Social Innovation*. Edward Elgar, Cheltenham. Pp. 13-24

@Murray, R., Caulier-Grice, J. and Mulgan, G. (2010). *The open book of social innovation*. The Young Foundation. Pages 1-49.

@Sahakian, M. (2013): Complementary currencies: What opportunities for sustainable consumption in times of crisis and beyond? *Sustainability: Science, Practice and Policy* 10(1): 4-13.

@van der Haave, R.P. and Rubalcaba, L. (2016): Social innovation research: An emerging area of innovation studies? *Research Policy*, 45, 1923-1935.

@Weinstein, MP et al. (2013): The global sustainability transition: it is more than changing light bulbs. *Sustainability: Science, Practice and Policy* 9(1): 4-15.

Recommended Readings:

Hawken, P. 1993. *The Ecology of Commerce: A Declaration of Sustainability*. NY, Harper Business.